



## dragonfly

representative species

|                  |            |
|------------------|------------|
| Kingdom:         | Animalia   |
| Division/Phylum: | Arthropoda |
| Class:           | Insecta    |
| Order:           | Odonata    |

### Features

Dragonflies undergo incomplete metamorphosis (egg, nymph, adult). They have changed little for 300 million years with the exception of the wing span. In ancient dragonflies the wing span was over three feet and today, at most, it is about four inches. The aquatic nymph is about one-half to two inches long with a wide, oval, or round abdomen. It has large, compound eyes and a double-hinged lower lip with grasping pincers on the end. It is brown or green. Gills inside the body are used for breathing. It has six legs for moving about. Wing pads, which look like small wings, are present. It has three short, pointed structures at the end of the abdomen. Adults of most species hold the two pairs of long, membranous (thin, pliable) wings in a horizontal position while at rest. The front and hind wings are usually similar in size and shape. The adult's abdomen is long and slender. The compound eyes have over 30,000 facets each. The mouthparts are for chewing.

### Natural History

Dragonfly nymphs live in ponds and streams. Adults are found near ponds, marshes, lake shores, and slow-moving streams. Dragonfly nymphs eat other insects, worms, mollusks (snails, slugs, and others), crustaceans, and even small fish. Adults catch and eat other insects while flying. Dragonfly wings flap alternately in flight, allowing them to hover and move backwards. Adults normally move at about 25 miles per hour but may fly at speeds of 75 miles per hour for short periods. Mating occurs while flying. The male grasps the female behind her head with the pair of pincers at the end of his abdomen. The paired insects then fly for hours attached in this way. A male has the ability to remove other male's sperm from the female. The females of some species deposit eggs on top of the water. These eggs drift to the bottom. Other species lay eggs in the stems of aquatic plants. About 110 species have been identified in Iowa.

### Habitats

Mississippi River; Missouri River; interior rivers and streams; natural lakes and prairie marshes; wet prairies and fens; bottomland forests; constructed lakes, ponds, and reservoirs; temporary water supplies

### Iowa Status

common; native

### Iowa Range

statewide

### Bibliography

Iowa Department of Natural Resources. 2001.  
*Biodiversity of Iowa: Aquatic Habitats* CD-ROM.